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**RAW SEQUENCE LISTING**  
**PATENT APPLICATION:** US/10/010,114

**DATE:** 02/13/2002  
**TIME:** 14:37:19

**Input Set :** N:\CrF3\RULE60\10010114.raw.txt  
**Output Set:** N:\CRF3\02132002\J010114.raw

1 <110> APPLICANT: Boutin, Raymond H.  
 2 <120> TITLE OF INVENTION: Multifunctional Molecular Complexes for Gene Transfer  
 3 to Cells  
 4 <130> FILE REFERENCE: ahplausa  
 5 <140> CURRENT APPLICATION NUMBER: 10/010,114  
 6 <141> CURRENT FILING DATE: 2001-11-13  
 8 <150> PRIOR APPLICATION NUMBER: 09/425,597  
 9 <151> PRIOR FILING DATE: 1999-10-22  
 12 <150> PRIOR APPLICATION NUMBER: 08/809,397  
 13 <151> PRIOR FILING DATE: 1997-03-21  
 14 <150> PRIOR APPLICATION NUMBER: WO 9610038  
 15 <151> PRIOR FILING DATE: 1995-09-28  
 16 <150> PRIOR APPLICATION NUMBER: US 08/314,060  
 17 <151> PRIOR FILING DATE: 1994-09-28  
 18 <160> NUMBER OF SEQ ID NOS: 32  
 19 <170> SOFTWARE: PatentIn Ver. 2.0  
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 22 <211> LENGTH: 25  
 23 <212> TYPE: PRT  
 24 <213> ORGANISM: Vesicular stomatitis virus  
 25 <400> SEQUENCE: 1  
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 28                   Val Pro Ser Asn Tyr His Tyr Cys Pro  
 29                                   20   25  
 31 <210> SEQ ID NO: 2  
 32 <211> LENGTH: 32  
 33 <212> TYPE: PRT  
 34 <213> ORGANISM: Human immunodeficiency virus type 1  
 35 <400> SEQUENCE: 2  
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 37                    1               5                           10                           15  
 38                   Ser Thr Met Gly Ala Ala Ser Met Thr Leu Thr Val Gln Ala Arg Gln  
 39                                   20                                   25                           30  
 41 <210> SEQ ID NO: 3  
 42 <211> LENGTH: 35  
 43 <212> TYPE: PRT  
 44 <213> ORGANISM: Murine leukemia virus  
 45 <400> SEQUENCE: 3  
 46                   Glu Pro Val Ser Leu Thr Leu Ala Leu Leu Gly Gly Leu Thr Met  
 47                    1               5                           10                           15  
 48                   Gly Gly Ile Ala Ala Gly Val Gly Thr Gly Thr Thr Ala Leu Val Ala  
 49                                   20                                   25                           30

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Input Set : N:\Crf3\RULE60\10010114.raw.txt  
Output Set: N:\CRF3\02132002\J010114.raw

50 Thr Gln Gln 35  
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54 <211> LENGTH: 23  
55 <212> TYPE: PRT  
56 <213> ORGANISM: Human immunodeficiency virus type 1  
57 <400> SEQUENCE: 4  
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60 Ser Thr Met Gly Ala Arg Ser  
61 20  
63 <210> SEQ ID NO: 5  
64 <211> LENGTH: 17  
65 <212> TYPE: PRT  
66 <213> ORGANISM: Human immunodeficiency virus type 1  
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69 1 5 10 15  
70 Gly  
72 <210> SEQ ID NO: 6  
73 <211> LENGTH: 22  
74 <212> TYPE: PRT  
75 <213> ORGANISM: Influenza virus  
76 <400> SEQUENCE: 6  
77 Gly Leu Phe Glu Ala Ile Ala Glu Phe Ile Glu Gly Gly Trp Glu Gly  
78 1 5 10 15  
79 Leu Ile Glu Gly Cys Ala  
80 20  
82 <210> SEQ ID NO: 7  
83 <211> LENGTH: 25  
84 <212> TYPE: PRT  
85 <213> ORGANISM: Influenza virus  
86 <400> SEQUENCE: 7  
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88 1 5 10 15  
89 Met Ile Asp Gly Trp Tyr Gly Phe Arg  
90 20 25  
92 <210> SEQ ID NO: 8  
93 <211> LENGTH: 23  
94 <212> TYPE: PRT  
95 <213> ORGANISM: Human immunodeficiency virus type 1  
96 <400> SEQUENCE: 8  
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98 1 5 10 15  
99 Ser Thr Met Gly Ala Ala Ser  
100 20  
102 <210> SEQ ID NO: 9  
103 <211> LENGTH: 27  
104 <212> TYPE: PRT

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Input Set.: N:\Crf3\RULE60\10010114.raw.txt

Output Set: N:\CRF3\02132002\J010114.raw

105 <213> ORGANISM: SV5 virus  
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109 Ala Asn Val Thr Ala Ala Val Ala Leu Val Lys  
110 20 25

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113 <211> LENGTH: 19  
114 <212> TYPE: PRT  
115 <213> ORGANISM: SFV virus  
116 <400> SEQUENCE: 10  
117 Lys Val Tyr Thr Gly Val Tyr Pro Phe Met Trp Gly Gly Ala Tyr Cys  
118 1 5 10 15  
119 Phe Cys Asp  
121 <210> SEQ ID NO: 11  
122 <211> LENGTH: 23  
123 <212> TYPE: PRT  
124 <213> ORGANISM: PH-30 virus  
125 <400> SEQUENCE: 11  
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127 1 5 10 15  
128 Phe Ala Ala Ile Asn Ile Pro  
129 20

131 <210> SEQ ID NO: 12  
132 <211> LENGTH: 22  
133 <212> TYPE: PRT  
134 <213> ORGANISM: Sendai virus  
135 <400> SEQUENCE: 12  
136 Phe Phe Gly Ala Val Ile Gly Thr Ile Ala Leu Gly Val Ala Thr Ala  
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138 Thr Ala Ala Gln Ile Thr  
139 20

141 <210> SEQ ID NO: 13  
142 <211> LENGTH: 22  
143 <212> TYPE: PRT  
144 <213> ORGANISM: SV5 virus  
145 <400> SEQUENCE: 13  
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147 1 5 10 15  
148 Thr Ala Ala Gln Val Thr  
149 20

151 <210> SEQ ID NO: 14  
152 <211> LENGTH: 22  
153 <212> TYPE: PRT  
154 <213> ORGANISM: NDV virus  
155 <400> SEQUENCE: 14  
156 Phe Ile Gly Ala Ile Ile Gly Gly Val Ala Leu Gly Val Ala Thr Ala  
157 1 5 10 15  
158 Thr Ala Ala Gln Ile Thr

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Input Set : N:\Crf3\RULE60\10010114.raw.txt

Output Set: N:\CRF3\02132002\J010114.raw

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161 <210> SEQ ID NO: 15  
162 <211> LENGTH: 28  
163 <212> TYPE: PRT  
164 <213> ORGANISM: Influenza virus  
165 <400> SEQUENCE: 15  
166 Gly Leu Phe Gly Ala Ile Ala Gly Phe Ile Glu Asn Gly Trp Glu Gly  
167 1 5 10 15  
168 Met Ile Asp Gly Trp Tyr Gly Phe Arg His Gln Asn  
169 20 25  
171 <210> SEQ ID NO: 16  
172 <211> LENGTH: 28  
173 <212> TYPE: PRT  
174 <213> ORGANISM: Influenza virus  
175 <400> SEQUENCE: 16  
176 Gly Leu Phe Gly Ala Ile Ala Gly Phe Ile Glu Asn Gly Trp Glu Gly  
177 1 5 10 15  
178 Leu Val Asp Gly Trp Tyr Gly Phe Arg His Gln Asn  
179 20 25  
181 <210> SEQ ID NO: 17  
182 <211> LENGTH: 28  
183 <212> TYPE: PRT  
184 <213> ORGANISM: Influenza virus  
185 <400> SEQUENCE: 17  
186 Gly Phe Phe Gly Ala Ile Ala Gly Phe Leu Glu Gly Trp Glu Gly  
187 1 5 10 15  
188 Met Ile Ala Gly Trp His Gly Tyr Thr Ser His Gly  
189 20 25  
191 <210> SEQ ID NO: 18  
192 <211> LENGTH: 30  
193 <212> TYPE: PRT  
194 <213> ORGANISM: MMTV virus  
195 <400> SEQUENCE: 18  
196 Phe Val Ala Ala Ile Ile Leu Gly Ile Ser Ala Leu Ile Ala Ile Ile  
197 1 5 10 15  
198 Thr Ser Phe Ala Val Ala Thr Thr Ala Leu Val Lys Glu Met  
199 20 25 30  
201 <210> SEQ ID NO: 19  
202 <211> LENGTH: 53  
203 <212> TYPE: PRT  
204 <213> ORGANISM: MoMLV virus  
205 <400> SEQUENCE: 19  
206 Glu Pro Val Ser Leu Thr Leu Ala Leu Leu Leu Gly Gly Leu Thr Met  
207 1 5 10 15  
208 Gly Gly Ile Ala Ala Gly Ile Gly Thr Gly Thr Thr Ala Leu Met Ala  
209 20 25 30  
210 Thr Gln Gln Phe Gln Gln Leu Gln Ala Ala Val Gln Asp Asp Leu Arg  
211 35 40 45  
212 Glu Val Glu Lys Ser

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Input Set : N:\Crf3\RULE60\10010114.raw.txt  
Output Set: N:\CRF3\02132002\J010114.raw

213 50  
 215 <210> SEQ ID NO: 20  
 216 <211> LENGTH: 53  
 217 <212> TYPE: PRT  
 218 <213> ORGANISM: F-MuLV virus  
 219 <400> SEQUENCE: 20  
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 220                 1                 5                 10                 15  
 221                 Gly Gly Ile Ala Ala Gly Val Gly Thr Gly Thr Ala Leu Val Ala  
 222                 20                 25                 30  
 223                 Thr Gln Gln Phe Gln Gln Leu His Ala Ala Val Gln Asp Asp Leu Lys  
 224                 35                 40                 45  
 225                 Glu Val Glu Lys Ser  
 226                 50  
 227 <210> SEQ ID NO: 21  
 230 <211> LENGTH: 53  
 231 <212> TYPE: PRT  
 232 <213> ORGANISM: AKV virus  
 233 <400> SEQUENCE: 21  
     Glu Pro Val Ser Leu Thr Leu Ala Leu Leu Gly Gly Leu Thr Met  
 234                 1                 5                 10                 15  
 235                 Gly Gly Ile Ala Ala Gly Val Gly Thr Gly Thr Ala Leu Val Ala  
 236                 20                 25                 30  
 237                 Thr Gln Gln Phe Gln Gln Leu Gln Ala Ala Met His Asp Asp Leu Lys  
 238                 35                 40                 45  
 239                 Glu Val Glu Lys Ser  
 240                 50  
 241 <210> SEQ ID NO: 22  
 244 <211> LENGTH: 27  
 245 <212> TYPE: PRT  
 246 <213> ORGANISM: SFV virus  
 247 <400> SEQUENCE: 22  
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 249                 Gly Ala Tyr Cys Phe Cys Asp Ser Glu Asn Thr  
 250                 20                 25  
 251 <210> SEQ ID NO: 23  
 254 <211> LENGTH: 27  
 255 <212> TYPE: PRT  
 256 <213> ORGANISM: Sindbis virus  
 257 <400> SEQUENCE: 23  
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 258                 1                 5                 10                 15  
 259                 Gly Ala Gln Cys Phe Cys Asp Ser Glu Asn Ser  
 260                 20                 25  
 263 <210> SEQ ID NO: 24  
 264 <211> LENGTH: 19  
 265 <212> TYPE: PRT  
 266 <213> ORGANISM: Measles virus

VERIFICATION SUMMARY  
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